

CUSTOMER NO.: 24498
Serial: 09/819,554
Amdt. dated October 14, 2004
Reply to Office Action of July 14, 2004

PATENT
PF010030

IN THE CLAIMS

Claims 1–9 are currently pending in this application.

1. (Previously Presented) Process for the MPEG type video coding of high definition images, an image being split into panels, an encoder being assigned to each panel, two or more panels constituting, over the length of the image, a horizontal band of the image, wherein a rate control is implemented at a band level as a function of a preset bit rate for the band, each encoder of the band taking into account a same Video Buffering Verifier (VBV) calculated for the whole band.
2. (Original) Process according to Claim 1, wherein the preset bit rate allocated to a horizontal band is dependent on the cost of coding the band relative to the cost of coding a complete image.
3. (Original) Process according to Claim 2, wherein the coding cost is calculated on the basis of a preanalysis of the image.
4. (Original) Process according to Claim 2, wherein the coding cost is calculated on the basis of the cost of coding or complexity of a previous image.
5. (Original) Process according to Claim 2, wherein the preset bit rate for a horizontal band is in part the preset bit rate for the complete image, divided by the number of horizontal bands, in part a dynamic allocation of the preset bit rate for the complete image, dependent on the complexity of the band.

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6. (Original) Process according to Claim 2, wherein the preset bit rate of a horizontal band is equal to:

$$Di = \left(p \frac{Xi}{X} + (1-p) \frac{n}{N} \right) D$$

where : Di is the bit rate of the horizontal band,
D is the bit rate for the global image,
Xi is the complexity of the horizontal band,
X is the total complexity of the image,
n is the number of panels per horizontal band,
N is the total number of panels in the image,
p is the percentage of bit rate assigned to dynamic allocation relative to the global bit rate.

7. (Previously Presented) Device for the video coding of high resolution images, an image being divided into several horizontal bands and the bands into panels, the device comprising a set of encoders of MPEG type, each encoder being dedicated to the coding of a panel, wherein each encoder is coupled to another encoder of the same band for exchanging coding data in order to implement a global rate control at a band level through a same Video Buffering Verifier (VBV) for said band.

8. (Previously Presented) Device according to Claim 7, comprising a multiplexing bus linking the encoders for the transmission of the transport streams of the encoders, wherein said coding data are exchanged over said multiplexing bus.

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9. (Previously Presented) Device according to Claim 7, wherein each encoder comprises means for calculating a dynamic allocation, the bit rate allotted to the set of encoders of a band being calculated on the basis of the complexity of coding the band relative to the complexity of coding the complete image.